

## **REMARKS**

### **PRELIMINARY MATTER**

Claims 1-3, 5-6, 8-12, 14-21, 23-26, 28-33, 35-36, 38-42, and 44-48 are presented for reconsideration. Claims 4, 7, 13, 19 22, 27, 34, 37, and 43 have been canceled. Claims, 1, 2, 8, 16, 17, 23, 31, 32, and 38, have been amended. Claims 46-48 have been added.

The Specification has been amended in order to update the status of patent documents cited therein. Also, in paragraph [0041] Applicant has introduced material from U.S. Patent No. 6,507,586 (col. 4; lines 18-40), which was incorporated by reference in the original disclosure hereof. This material describes aspects of the REMADE protocol, which is recited in claims 2, 8, 17, 23, 32, and 38, all of which claims have been amended in order to more particularly point out and distinctly claim the subject matter. No new matter has been added.

### **REJECTIONS UNDER 35 U.S.C. § 112**

Claims 1 and 13 were rejected under 35 U.S.C. § 112, second paragraph. Claim 1 has been amended to correct the informalities noted by the Examiner. Claim 13 has been canceled.

### **REJECTIONS UNDER 35 U.S.C. § 103**

Claims 1-45 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Basani *et al.*, U.S. Patent No. 6,718,361 (Basani) in view of Srivastava, U.S. Patent No. 6,684,331.

Applicant has amended independent claims 1, 16 and 31 to distinguish the cited references.

Basani discloses an arrangement for distributing content in a network that operates in a different way from the presently claimed invention. According to Basani, a central content control manager issues directives, and divides remote servers administratively into “content groups” (col. 5; lines 33-37). “Group leaders” are elected in these groups, which then multicast content to backend servers, in a LAN or WAN (e.g., Fig. 1). The system achieves concurrency by a daisy chain among group leaders for communicating instructions from the control manager (col. 6; lines 5-15). The

Amendment dated February 8, 2006  
Reply to Office Action of December 15, 2005

group leaders, and the members of a content group can be reconfigured (col. 6; lines 18-35), which avoids the cost of manual reconfiguration of the network.

The invention as now claimed focuses on the optimization of content structure rather than distribution topology. The content structure is defined by hierarchical catalogs (group directories), which contain information about child groups of data items (Specification, paragraph [0039]). The catalogs are transmitted through multicast to subsidiary caches 26, which can be at any level of the networking tree below a cache 24 (Fig. 3). The group directories, describing the content, are independently reorganized in the subsidiary caches as appropriate for the needs of end users to choose a required part of the content (Specification, paragraph [0044]). This results in an optimization of content that is lacking in Basani.

Srivastava is cited by the Examiner for its disclosure of a multilevel hierarchy. However, the addition of Srivastava does not remedy the deficiencies of Basani. Srivastava discloses a system for secure multicasting through a hierarchical network, and is concerned with the distribution of security keys. Srivastava does not disclose the independent reorganization of content in subsidiary caches as presently claimed.

### **NEW CLAIMS**

New claims 46-48 are directed to a unidirectional technique, performed without uplink channels from any receiver to a higher level cache. Support for these claims is found in the Specification at paragraph [0039] (periodic retransmission of missing data), and paragraph [0045] (subsidiary caches 26 can independently decide to elect a periodic mode of transmission). Basani does not disclose this mode of operation. To the contrary, it appears to be necessary for group leaders to report to the control manager (col. 5; lines 47-49; Fig. 1). Basani is silent on the details of interaction between members of the content group and end users.

Amendment dated February 8, 2006  
Reply to Office Action of December 15, 2005

### CONCLUDING MATTERS

It is believed that the amendments and remarks presented hereinabove are fully responsive to all the grounds of rejection and objections raised by the Examiner, and that the Application is now in order for allowance.

The Commissioner is authorized to charge any deficiency of up to \$500.00 or credit any excess in this fee to Deposit Account 04-0100.

Applicant thanks the Examiner for his thorough consideration of the Application and appreciates the careful analysis of the art cited therein.

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Respectfully submitted,

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